

R E M A R K S

Claims 1-6 are now in this Application, and are presented for the Examiner's consideration.

Drawings

Enclosed are three sheets of new formal drawings containing Figs. 1(a)(1), 1(a)(2), 1(b)(1), 1(b)(2), 2; 6; and 7(a) and 7(b), all containing the corrections made on November 19, 2001 and approved by the Examiner. The new sheets of formal drawings are each entitled "Replacement Sheet."

The Examiner is requested to approve the new formal drawing sheets.

Objection to Disclosure

The disclosure has been amended at page 7, line 2 to change reference from "Fig. 7" to "Fig. 7(a)," as suggested by the Examiner.

Applicant has not found any further errors that require correction.

Rejections of Claims under 35 U.S.C. §112

Claims 1-6 were rejected under 35 U.S.C. §112, first paragraph.

The object of electroforming is limited to metals, and it is impossible to electroform polymers. Electroforming is obtained by moving positive ion materials, and metals can be made to have

positive ions by electric fields. However, plastic cannot be made ionic by electric fields.

In this regard, claim 1 has been amended to clarify the same to recite the step of "electroforming a metal on a wire," as suggested by the Examiner.

Accordingly, it is respectfully submitted that the rejection of claims 1-6 under 35 U.S.C. §112, first paragraph, has been overcome.

Claims 1-6 were rejected under 35 U.S.C. §112, second paragraph.

In regard to the rejection of claim 1, line 9, the specification states at the last line on page 8 to the first line on page 9, "one elongated rod-shaped portion having a diameter of 2 to 3 mm is obtained by growth of electroforming portion."

Thus, the rod is obtained by the growth of electroforming around the wire. In other words, the rod is composed of the electroformed metal around the wire, and the wire itself.

The Examiner makes the statement that it appears that just the electroformed material is machined since it is unclear how the rod is machined after the wire is drawn out.

The rod is composed of the electroformed metal after the wire is drawn out, and therefore, the object of machining is that of the electroformed metal of the rod-shaped portion, as noted by the Examiner.

In this regard, claim 1 has been amended to clarify this

aspect by reciting the steps of:

electroforming a metal on a wire used as a mother mold with the wire stretched to make the wire into a rod-shaped portion formed by electroformed metal,

forming grooves ... on the rod-shaped portion formed by the electroformed metal at intervals to form groove portions, and

machining the rod-shaped portion formed by the electroformed metal to adjust at least a length and diameter of the rod.

As to claim 4, the word "type" has been changed to "shape." The specification has been amended in a similar manner at page 5 and pages 7-8, so that Figs. 8(a)-8(g) disclose the cross-section of a multi-core shape.

Accordingly, it is respectfully submitted that the rejection of claims 1-6 under 35 U.S.C. §112, second paragraph, has been overcome.

Prior Art Rejection

Claims 1-6 were rejected under 35 U.S.C. §103(a) as being obvious from U.S. Patent No. 4,290,857 to Ikeda et al.

According to the Examiner, cutting an electroformed rod by blade 6 is the equivalent to forming a groove portion and breaking the grooves.

However, a groove is formed by using a lathe or a grinder, whereby the remaining part of the wire corresponding to the groove can be grasped, and the wire can be easily drawn.

On the other hand, wires 1 cannot be drawn out in Ikeda et al, but rather, are removed by dissolution. See column 3, line 7 of Ikeda et al. Ikeda et al teaches cutting the rod into thin disc shaped chips 7 of 0.2 mm thick. Therefore, forming a groove according to the present invention is not the equivalent to cutting by using a blade 6, as in Ikeda et al.

Ikeda et al is directed to a very different invention, namely, the formation of a head of an ink jet plotter (column 1, lines 6-8). For this reason, Ikeda et al must finely and accurately cut or slice the rod into the very thin disc shaped chips 7 of 0.2 mm thick (column 2, lines 60-61). Because of these thin slices of discs, it is not possible to draw out the wire in Ikeda et al.

However, by forming grooves in the rod and breaking the grooved portions, the wire can be grasped and drawn out. Therefore, there is a big difference between forming grooves in a rod according to the present claimed invention and slicing thin discs according to Ikeda et al.

In order to emphasize this distinction, claim 1 has been further amended to recite the step of forming grooves of V-shaped cross-section by using one of a lathe and grinder such that portions of the wire remain on the rod-shaped portion formed by the electroformed metal at intervals to form groove portions. As

discussed above, by means of these V-shaped grooves, the wire can be grasped and drawn out.

This aspect is nowhere disclosed or even remotely suggested by Ikeda et al, and in fact, would render Ikeda et al inoperative for its intended purpose, since Ikeda et al produces thin discs for ink jet printer heads.

The Examiner further states that "forming a groove portion and breaking it does not appear to have been invented by the Applicants, unless proven otherwise."

It is submitted that applicants are the original and first inventors of this invention of forming grooves in the rod and breaking the rod along the grooves. It is not a requirement under the patent laws for the applicants to prove that they are the original and first inventors. The applicants have submitted their application and signed a Declaration stating that they are the original and first inventors.

It is the responsibility of the Patent Office to cite prior art which would disprove this claim. It is not the responsibility of the applicants to prove that they are the inventors. Their submission of the application is sufficient proof.

The Examiner has not cited any prior art reference which would disprove this claim of inventorship by the applicants herein. Applicants allege that there is no such prior invention by others.

The Examiner is therefore requested to provide prior art to show that this was previously invented by others in relation to a method of manufacturing a part for an optical fiber connector, as claimed.

The Examiner further states that dissolving and removing the core wire is equivalent to drawing out the wire.

However, the former corresponds to a chemical method, and the latter corresponds to a mechanical method, and they are completely different from each other. Further, as discussed above, Ikeda et al could not draw out the wire, in view of the thin sliced discs thereof.

The Examiner further states that drawing out a wire does not appear to have been invented by the applicants, unless proven otherwise. As discussed above, it is the responsibility of the Patent Office to disprove inventions, and not the responsibility of the applicants to prove their invention.

There is no prior art cited against the claims as to drawing out of wire.

However, even if such prior art is known, the present invention is not directed only to drawing out wire, but rather, is directed to a method of manufacturing a part for an optical fiber connector, including the steps of forming a rod by electroforming metal thereon, forming grooves in the rod, breaking the rod along the grooves, drawing out the wire, and then machining the rod.

Thus, it is asserted that there is no prior art which discloses or even remotely shows the drawing out of a wire after forming grooves in a rod and breaking the grooved portions.

As to the dependent claims, the Examiner states that using cross-sections of the wire other than a circular cross-section does not further limit the method of claim 1, and would also be obvious to one skilled in the art.

In order to clarify this, claim 4 has been amended to recite that the prior step of electroforming includes the step of electroforming a metal on a wire having a multi-core shape using cross-sections of the wire other than a circular cross-section.

Ikeda et al fails to disclose or even remotely suggest using a wire having a multi-core shape.

If it is so obvious, as stated by the Examiner, then it should be relatively easy to provide a single reference which shows the same. The Examiner is therefore requested to provide prior art showing the same in the context of the present claimed invention of a method of manufacturing a part for an optical fiber connector.

Accordingly, it is respectfully submitted that the rejection of claims 1-6 under 35 U.S.C. §103(a), has been overcome.


If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

In the event that this Paper is late filed, and the necessary petition for extension of time is not filed concurrently herewith, please consider this as a Petition for the requisite extension of time, and to the extent not tendered by check attached hereto, authorization to charge the extension fee, or any other fee required in connection with this Paper, to Account No. 07-1524.

The Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 07-1524.

In view of the foregoing amendments and remarks, it is respectfully submitted that claims 1-6 are allowable, and early and favorable consideration thereof is solicited.

Respectfully submitted,


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